1. A plastic lens, comprising:

refractive and diffractive optical apparatus configured to produce optothermal changes substantially canceling each other over a predetermined working temperature range to render the plastic lens substantially athermalized over the range.

2. The lens of claim 1, comprising

a refractive surface and a diffractive optical element, wherein optothermal changes due to the refractive surface counter optothermal changes due to the diffractive optical element.

3. The lens of claim 1, wherein the optothermal changes canceling each other include changes affecting the focal length of the lens.

4. The lens of claim 1, comprising polycarbonate.

5. The lens of claim 1, comprising acrylic.

6. The lens of claim 1, wherein the lens has a net positive power.

7. The lens of claim 1, wherein an optothermal expansion coefficient of the refractive optical apparatus is higher than an optothermal expansion coefficient of the diffractive optical apparatus.

8. The lens of claim 1, comprising a diffractive optical element that is substantially smaller than the lens.

9. The lens of claim 1, wherein a first surface of the lens provides substantially all of the negative power of the lens, and a second surface of the lens provides substantially all of the positive power of the lens.

10. The lens of claim 1, wherein a surface of the lens provides substantially all of the negative power of the lens and substantially all of the positive power of the lens.

11. The lens of claim 1, wherein the diffractive optical apparatus includes a diffractive optical element that is substantially spherical in average.

12. The lens of claim 1, wherein a surface of the lens is substantially flat.

13. The lens of claim 1, wherein the refractive optical apparatus is divided unevenly between first and second surfaces of the lens.

14. The lens of claim 1, wherein substantially all of the diffractive optical apparatus is disposed on one surface of the lens.

15. The lens of claim 1, wherein the diffractive optical apparatus is divided substantially evenly between first and second surfaces of the lens.

16. The lens of claim 1, wherein the lens includes an axicon.

17. The lens of claim 16, wherein the axicon includes a polymer.

18. The lens of claim 16, wherein the axicon is disposed at a substantially spherical surface of the lens.

19. The lens of claim 16, wherein a diffractive optical element and the axicon are disposed at different surfaces of the lens.

20. The lens of claim 16, comprising a diffractive optical element that includes at least eight phase levels.

21. The lens of claim 16, comprising a diffractive optical element that includes fewer than nine phase levels.

22. The lens of claim 16, wherein the axicon is affixed to a surface of the lens.

23. The lens of claim 16, wherein the lens has an aspherical surface having the optical properties of a combination of a spherical surface with the axicon.

24. The lens of claim 16, wherein the lens includes a doublet.

25. The lens of claim 16, wherein the lens includes a Cook triplet anastigmat.

26. The lens of claim 16, wherein the lens includes a symmetric double Gaussian.

27. The lens of claim 16, wherein the MTF of the lens is higher with the axicon than without the axicon for bar code symbols having spatial wavelengths of 10-20 mils, inclusive.

28. The lens of claim 16, wherein the MTF of the lens is at least 0.2 for a 10 mil bar code symbol that is from about 4 to about 16 inches away from the lens.